

## **General Disclaimer**

### **One or more of the Following Statements may affect this Document**

- This document has been reproduced from the best copy furnished by the organizational source. It is being released in the interest of making available as much information as possible.
- This document may contain data, which exceeds the sheet parameters. It was furnished in this condition by the organizational source and is the best copy available.
- This document may contain tone-on-tone or color graphs, charts and/or pictures, which have been reproduced in black and white.
- This document is paginated as submitted by the original source.
- Portions of this document are not fully legible due to the historical nature of some of the material. However, it is the best reproduction available from the original submission.

E 7.5 - 10388  
TAX - 72453

"Made available under NASA sponsorship  
in the interest of early and wide dis-  
semination of Earth Resources Survey  
Program information and without liability  
for any use made thereof."

EREP QUARTERLY PROGRESS REPORT

31 OCTOBER 1974 to 31 JANUARY 1975

PLANNING APPLICATIONS IN EAST CENTRAL FLORIDA

EXPERIMENT PROPOSAL NO. 385

CONTRACT NO. CC-30281A

BREVARD COUNTY PLANNING DEPARTMENT

2575 North Courtenay Parkway

Merritt Island, Florida 32952

(E75-10388) PLANNING APPLICATIONS IN EAST  
CENTRAL FLORIDA Quarterly Progress Report,  
31 Oct. 1974 - 31 Jan. 1975 (NASA) 10 p HC  
\$3.25

N75-30621

CSCL 08B

Unclass

G3/43 00388

**EREP PROGRESS REPORT**

**Covering the period 31 October to 31 January 1975**

**PLANNING APPLICATIONS IN EAST CENTRAL FLORIDA**

**Proposal No. 385**

<b>Principal Investigator:</b>	<b>John W. Hannah</b>
<b>Co-investigators:</b>	<b>Dr. Garland L. Thomas*</b> <b>Fernando Esparza**</b>
<b>Computer Programming:</b>	<b>James J. Millard**</b>
<b>Technical Monitor:</b>	<b>U. R. Barnett, Code SA</b> <b>John F. Kennedy Space Center,</b> <b>NASA</b> <b>Kennedy Space Center, Fla 32899</b>

**31 January 1975**

**\* Brevard County Planning Department**

**\*\* Kennedy Space Center**

ALACHUA COUNTY

At the request of the North Central Florida Regional Planning Council, a land use map of Alachua County has been made from S190A photography. The nine-inch enlargements were used in a Variscan viewer and the pattern traced, as described in an earlier progress report.<sup>1</sup> A difference, however, is that the next higher enlargement stage (X12.06) was used, giving a map with a scale of approximately 1/55,000.

Enlarging the photography by that amount meant that only about one fourth of the county could be projected on the Variscan screen at one time; hence, the county was divided into four segments for mapping. The mapping of each segment on the Variscan took about six hours of the interpreter's time, for a total of approximately 24 man-hours for that part of the job. USGS 7.5' quadrangle map plus a road map of the county were the only ground truth sources available for this stage of the process.

The Anderson classification system was used to identify land uses. (partially level one and partially level two), and the rough map was sent to the regional planners for their evaluation and correction. They checked the map against their aircraft photography (1/63,000 scale) and local knowledge, and the qualitative evaluation was favorable: "In all regards, it seems as though the map is very accurate and will be of use in the future for regional planning purposes."

The map contains 540 land use "blocks". Twenty seven corrections were made, corresponding to one correction for every 20 "blocks".

<sup>1</sup> EREP Quarterly Progress Report, 3 July 1974.

After the corrections were pointed out to the interpreter, they were nearly all seen on a recheck of the photography, indicating that more experience, or more careful interpretation, or interpretation by a person familiar with the region probably could increase the original accuracy somewhat.

The following corrections were made:

Sub-areas within larger areas.

Four industrial sectors were added (Three of these were overlooked; two were in cropland sectors and one was within a forest sector. The fourth was in an urban region and was not seen clearly as industrial even upon recheck.)

One rural residential sector was added from within a forest sector.

Two residential sectors were added from within forest sectors.

One wooded residential sector was added from within a cropland sector.

One forest sector was added from within an urban residential sector.

One commercial sector was added from within a cropland sector.

Two citrus grove sectors were added from within a cropland and pasture sector.

One cropland and pasture sector was added from within an urban sector.

One urban sector was added from within a cropland and pasture sector.

Three cropland and pasture sectors were added from within forest sectors.

One marsh sector was added from within a cropland and pasture sector.

One cropland and pasture sector was added from within a bare sand sector.

The following changes in designation were made:

commercial to industrial: 1 case

forest to marsh: 1 case

cropland and pasture to mixture of pasture and forest: 1 case

cropland and pasture to wooded residential: 1 case

cropland and pasture to forest: 4 cases

agricultural to mixture of cropland and pasture and wooded residential: 1 case

commercial to institutional: 1 case

Relative to the last item, commercial to institutional: certainly institutional land use cannot be ascertained from photography without local knowledge. It is our philosophy that local knowledge and other sources of information should be used to assist the interpretation where practicable.

Upon receipt of the above corrections, a final version of the map was prepared and sent to the regional planners for their evaluation and use. Figures 1-4 show this map presented in four sectors to minimize confusion of detail.

We regard a map of this type, with land uses designated by a numerical system, as a base map to be used by planners for reference and to prepare versions which they find useful. Since planners usually prefer to designate land uses by colors, we have made a couple of hand-colored versions of this map; this significantly enhances their appeal and utility and does not decrease their capability when the numbers are also included.

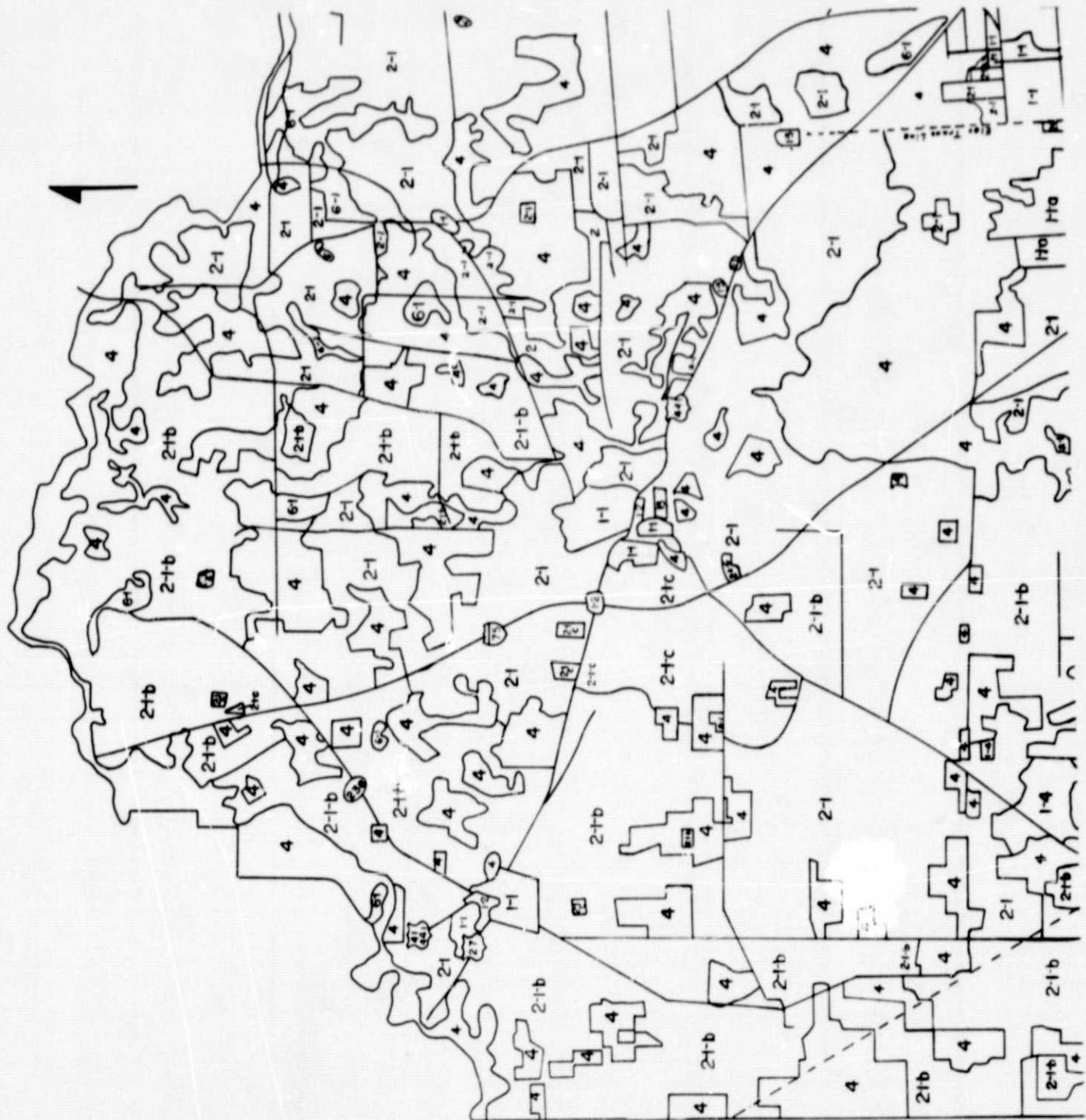


Figure 1. Land Use Map, Northeast Sector,  
Alachua County

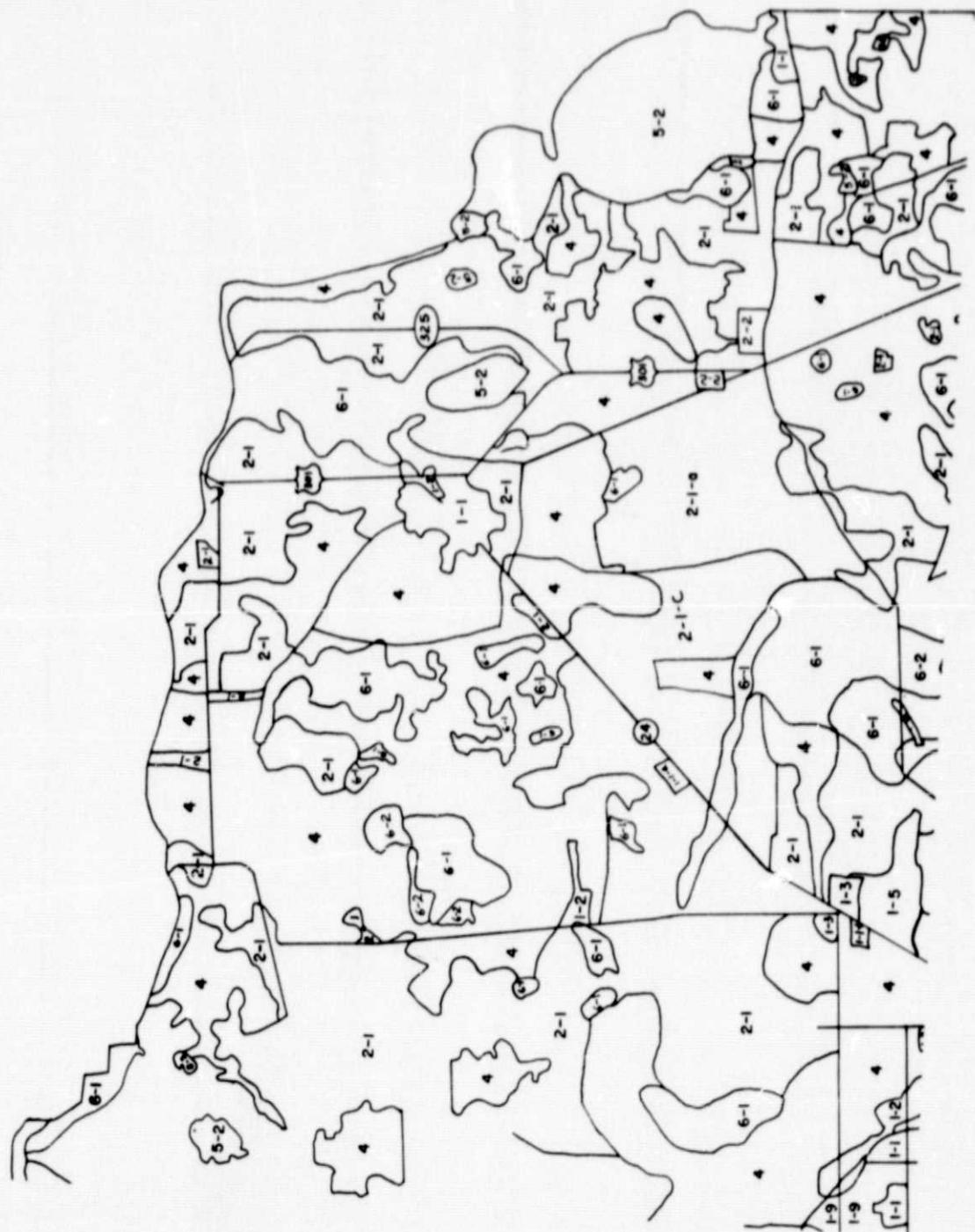


Figure 2. Land Use Map, Northeast Sector,  
Alachua County

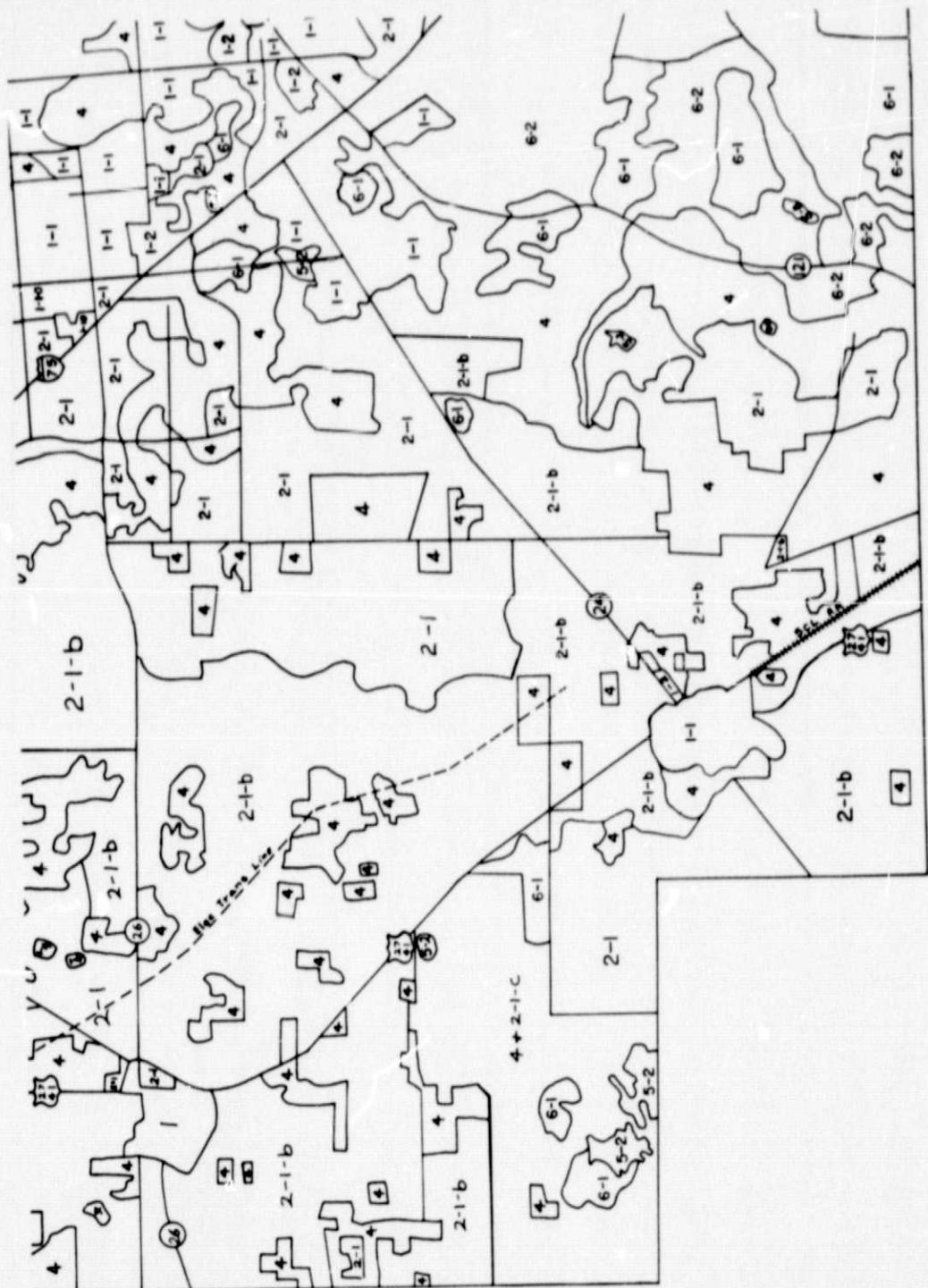


Figure 3. Land Use Map, Southwest Sector, Alachua County

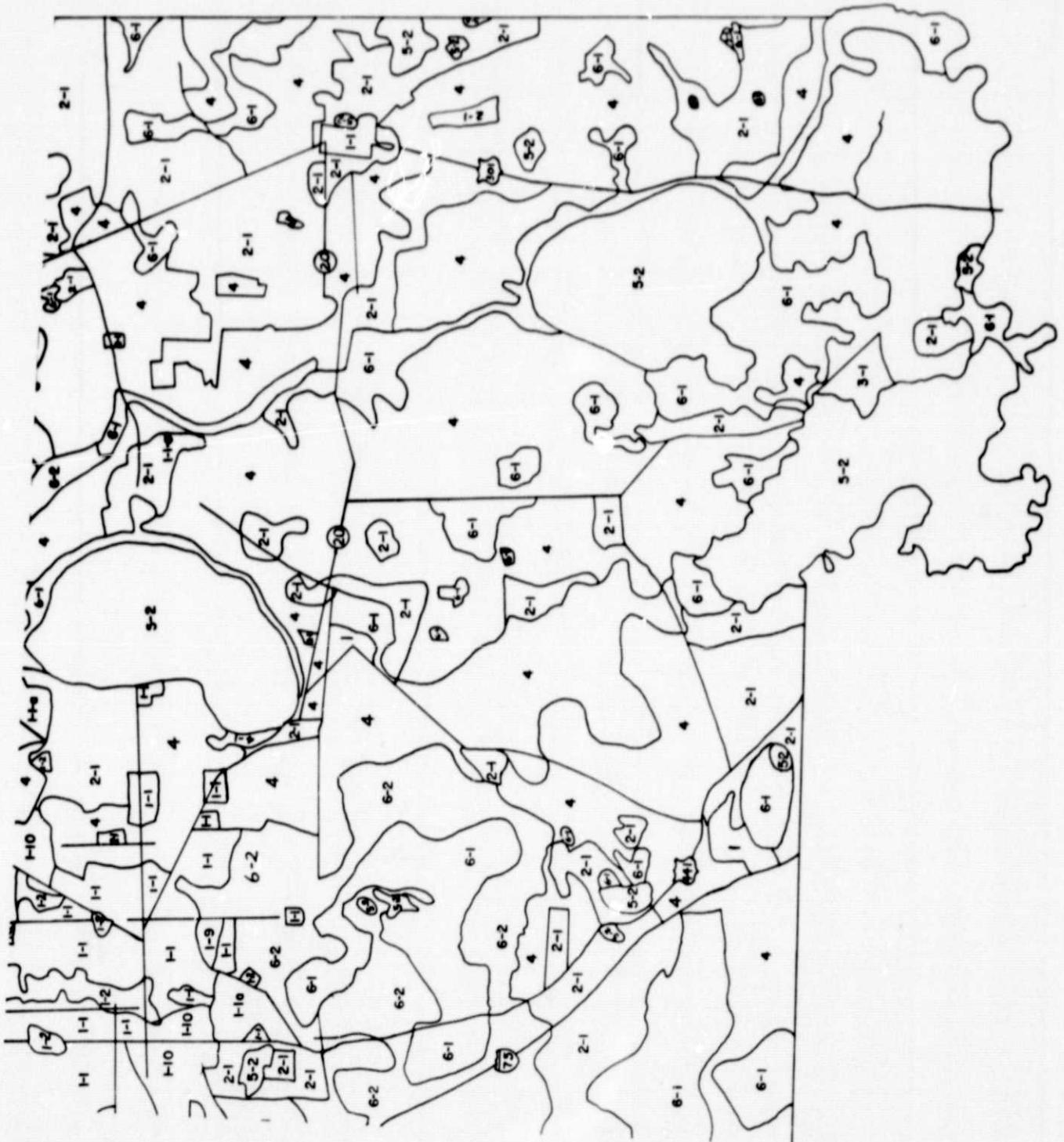


Figure 4. Land Use Map, Southeast Sector,  
Alachua County

Time spent by the regional planners in checking and correcting the rough map was six man-hours, making a total of approximatley 30 man-hours to go from the photography to the corrected rough map. The time required for the remaining stages would be the same as that for preparation of a land use map by a conventional process.

Checking of the final map by the regional planners has disclosed one remaining minor error. They have confirmed their satisfaction with the result, have made a hand-colored version and expect the map to be useful in regional and, for some purposes, county planning.

## APPENDIX

### LAND-USE CATEGORIES:

#### Level 1

01. Urban and built-up land

#### Level 2

- 01. Residential
  - a. Wooded residential
  - b. Rural residential
  - c. Mobile-home parks
- 02. Commercial and services
- 03. Industrial
- 04. Extraction
  - a. Phosphate mines
  - b. Reclaimed phosphate mines-
- 05. Transportation
- 07. Strip
- 09. Open
- 10. Institutional & recreational

02. Agricultural land

- 01. Cropland and pasture
  - a. Muck farms (vegetables)
  - b. Vegetable farming
  - c. Pasture
- 02. Groves
  - a. Primarily citrus

03. Rangeland

- 01. Grass

04. Forest land

- 01. Deciduous
- 02. Evergreen (pines)
- 03. Mixed

05. Water

- 01. Streams and waterways
- 02. Lakes
- 03. Other (Gulf of Mexico)

06. Nonforested Wetland

- 01. Vegetated
- 02. Bare
- 03. Sand other than beaches

07. Barren Land  
Mixed Categories

Open and Citrus Groves

Groves and Lakes

Lakes, Groves & Vegetated Wetlands